



## Alternative Fruit and Crops for Cyprus

### Capers Production



A longstanding rural tradition for Cypriots has been to collect caper sprouts from the countryside to make pickles. Although pickled caper sprouts are commonly used in home-cooking recipes and in local restaurants, only a very limited amount is produced commercially. The pickled caper flower buds (capers) are a highly prized commodity in the EU. With the increasing interest in Mediterranean Cuisine, the world demand for pickled caper flower buds are also increasing. The annual increase for the world caper consumption has been 6% over the last 14 years.

The EU and the Asian market are the biggest importers for the high quality caper flower buds. The EU rejected imports from Morocco recently because of the toxic residue found in the products. However, for the caper products that are appropriately certified, the world market is wide open. Further, organic production of capers will open an additional market niche. A good marketing concept will bring this local plant to an export success because the growing conditions for capers are outstanding in Cyprus. Capers is a Green Line trade acceptable product which makes sales in the GCC possible.



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The ground is prepared for planting through moldboard plowing and harrowing or digging backhoe pits for capers, if the ground is rocky.

## **2- Cultivars and Varieties**

Preferred varieties have no spines, round firm buds, and rich flavor. High-yielding caper plants and types with short and uniform flowering periods have not yet been developed.

Some of the important varieties:

- 'senza spina' Italian selection or form without stipular spines.
- 'spinosa comune' - Italian form with stipular spines
- 'inermis' - without stipular spines.
- 'josephine' - one of the better Mediterranean selections
- 'aculeata'
- 'dolce di Filicudi e Alicudi' - From the Aeolian Archipelago
- 'nuciddara' or 'nucidda'
- 'nocellana'- spineless, with globose buds, mustard-green color, and strong aroma
- 'testa di lucertola'
- 'tondino' - grown on the island of Pantelleria

We recommend that the variety to be cultivated should be selected according to the market demand and to the demand of the international wholesaler.

## **3- Propagation**

Plants are grown from seeds and by vegetative cuttings.

### *From seeds:*

Fresh caper seeds germinate readily - but only in low percentages. Dried seeds become dormant and are notably difficult to germinate and therefore require extra measures to grow. Dried seeds should be initially immersed in warm water (40°C) and then let soak for 1 day. Seeds should be wrapped in a moist cloth, placed in a sealed glass jar and kept in the refrigerator for 2 - 3 months. After refrigeration, soak the seeds again in warm water overnight. Plant the seeds about 1 cm deep in a loose well-drained soil media. Young caper plants can be grown in a greenhouse (preferable minimum temperature of 10°C).

### *From Stem Cuttings:*

Cuttings should be collected in February, March or April. Stems should be used from the basal portions, greater than 1 cm diameter and 8 cm in length with 6-10 buds. Use a loose well-drained media with bottom heat. A dip in a IBA solution of 1.5 to 3.0 ppm is recommended (15 seconds). A 70% rooting percentage would be considered good.

## **4- Planting Layout for Fruit Production**

Transplanting is carried out during the wet winter and spring periods, and first-year plants are mulched with stones. Plants are usually planted in a square design and space from 2 to 6 meters apart to accommodate their sprawling growth. In Italy, plants are spaced 2 to 2.5 meters apart (depending on the roughness of the topography; about 2,000 plants per hectare). A full yield is expected in 3 to 4 years. Grown from seed, in

California capers reportedly begin to flower in the fourth year, however Italian sources report some flowering from first year transplants.

### **5- Irrigation and Fertilization**

With first year plants, over-watering must be avoided, as wet roots will kill the caper plant. Water should only be provided with drip irrigation. A salinity of 5500 ppm of the irrigation water did not show any growth depression. You can have your water tested at the water and leaf test laboratory in Guzelyurt.

The first fertilization can take place 20 to 30 days before planting and depends on the soil constitution. Phosphate and potassium fertilizer are applied every two or three years.

### **6- Pruning**

Plants are pruned back in winter to remove dead wood and water sprouts. Pruning is crucial to high production. Heavy branch pruning is necessary, as flower buds arise on one-year-old branches. Three-year-old plants will yield 1 to 3 kilograms of caper flower buds per plant. Caper plantings will last 20 to 30 years.

### **7- Harvesting**

The unopened flower buds should be picked on dry days. Harvesting is carried out regularly throughout the growing season. In Southern Italy, caper flower buds are collected by hand about every 8 to 12 days, resulting in 9 - 12 harvest times per season.

### **8- Processing**

Capers are preserved either in vinegar or under layers of salt in a jar. Raw caper berries are bland flavored and need to be cured to develop their piquant flavor. In Italy, caper berries are graded on a scale from '7' to '16', which indicates their size in millimeters. Mechanized screens are used to sort the various sized capers after being handpicked from the hillsides. Caper berries under a centimeter diameter are considered more valuable than the larger ones (up to one and a half centimeters of diameters).

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## **Contact us**

For more information, please feel free to come to our office or call/email us. Our consultants are always available to answer your questions:

Tuğberk Emirzade, [tugberk.emirzade@edge-bearingpoint.com](mailto:tugberk.emirzade@edge-bearingpoint.com)

Gerhard Zechner, [gerhard.zechner@bearingpoint.com](mailto:gerhard.zechner@bearingpoint.com)

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NOTE: This publication is not intended to be a 'step by step implementation guide'. This is only to give an idea on the scope of Capers Production to the people interested in an agribusiness project.